

FIGURE 1

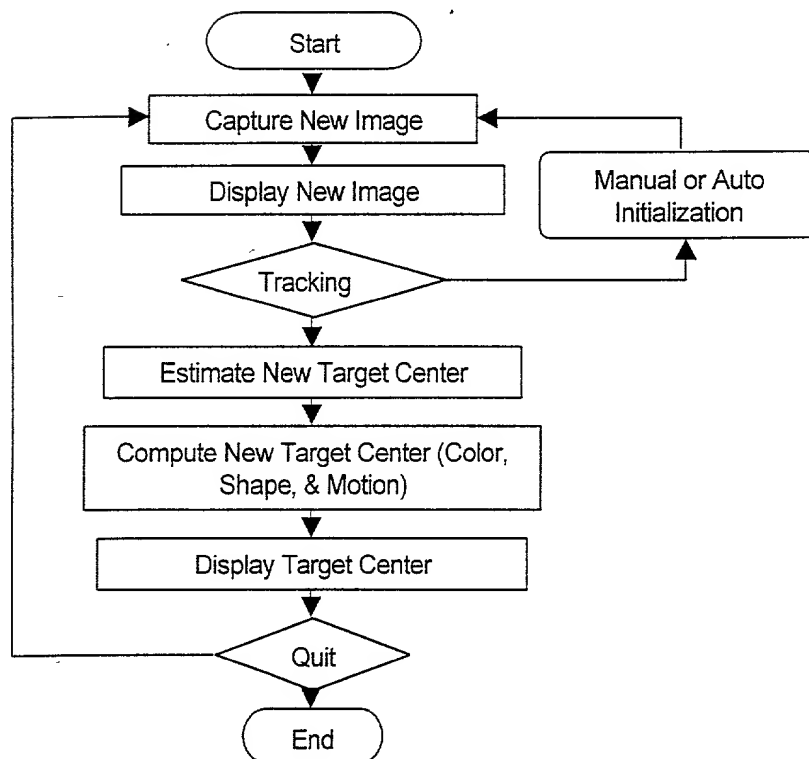


FIGURE 2

File Help

Box Row Size 80

40

Box Column Size 30 20

Motion Intensity Thr Motion Count Thr

Freq 28.30 Hz Pos 106.04 155.20
Freq 28.75 Hz Pos 111.43 158.00

FIGURE 3

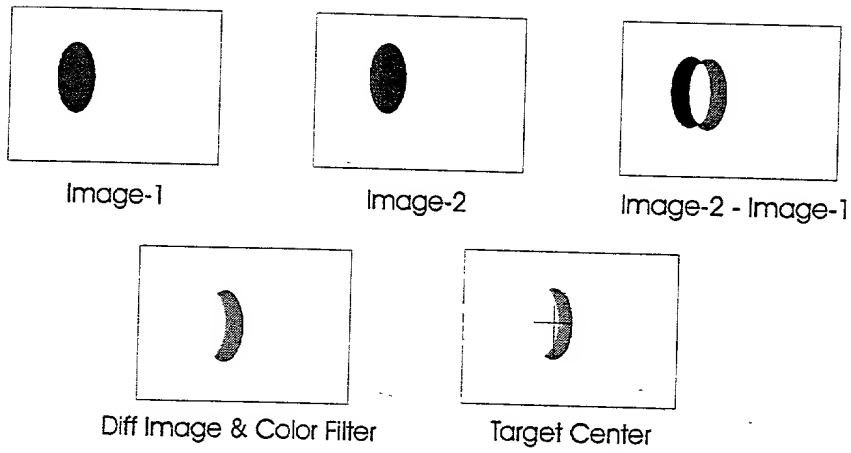


FIGURE 4

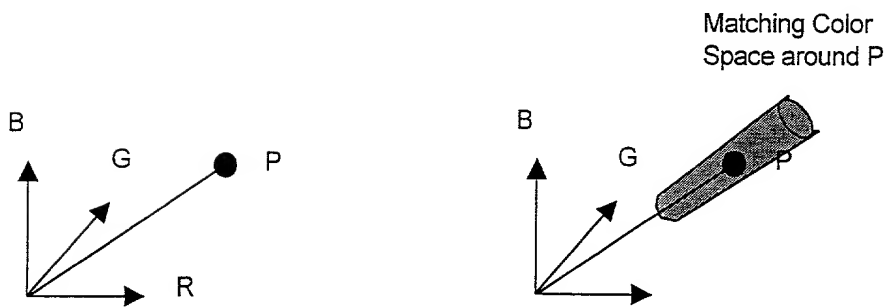


FIGURE 5

Given new image and the estimated target center as rc , cc and old target shape
begin

```
for  $i=rc-rs/2$  to  $i=rc+rs/2$ 
  for  $j=cc-cs/2$  to  $j=cc+cs/2$ 
     $RGB = \text{pixel}(i,j)$ 
     $c = \text{FindColorMatch}(RGB)$ 
    if  $c > 0$ 
       $cr = c*i$ 
       $cc = c*j$ 
      if this pixel lies on the previous shape template
         $sr = c*i$ 
         $sc = c*j$ 
         $s = c$ 
      else pixel shows movement
         $mr = c*i$ 
         $mc = c*j$ 
         $m = c$ 
      endif
      mark this pixel in the next shape template
       $Nc = Nc + c$ 
       $Ns = Ns + s$ 
       $Nm = Nm + m$ 
    else
      unmark this pixel in the next shape template
    endif
  endfor
endfor
```

```
 $cr = cr/Nc$ ,  $cc = cc/Nc$ 
 $sr = sr/Ns$ ,  $sc = sc/Ns$ 
 $mr = mr/Nm$ ,  $mc = mc/Nm$ 
```

compute new target center as a weighted average

```
 $newr = cr*crw + sr*srw + mr*mrw$ 
 $newc = cc*crw + sc*srw + mc*mrw$ 
 $velr = (newr-rc)/t$ 
 $velc = (newc-cc)/t$ 
```

FIGURE 6

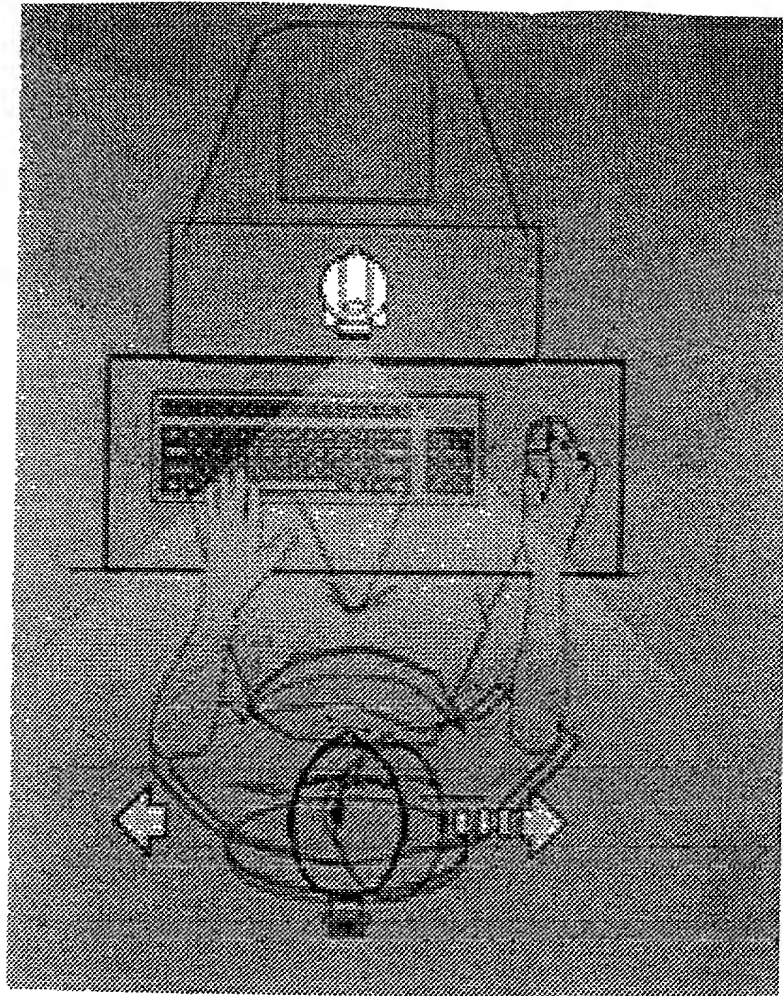


FIGURE 7